REMARKS

In the Office Action dated January 27, 2009, the Examiner states that Claims 1 and 4 are pending and Claims 1 and 4 are rejected. As only Claims 1 and 4 are currently pending in this application, Applicant refers only to claims 1 and 4 below. The Applicant believes that the remarks made over the Claims are fully responsive to and overcome the rejections.

In the claims, please amend claims 1 and 4 changing some of the recitations of "foams" to "a foam having bubbles" and changing "sizes of the foams" to "sizes of pores formed by bubbles". Support for these amendments can be found in the original disclosure, for instance in original claims 1-3, and 5-6. No new matter has been added. The amendments to the claims can be viewed in the Amendments section of this paper in the Listing of claims beginning on page 2.

Rejection of Claims 1 and 4 under 35 U.S.C. §112, second paragraph.

Claims 1 and 4 are rejected under 35 U.S.C. §112, second paragraph, for being indefinite. In response, the Applicant has amended claims 1 and 4 to change "foams" to "a foam having bubbles" and the recitations "sizes of the foams" to 'sizes of pores formed by bubbles". The Applicant believes that these amendments are fully responsive to the rejection and also overcomes the rejection. The Applicant respectfully requests that the Examiner withdraw this ground of rejection of the claims.

Rejection of the claims under 35 U.S.C. §103(a).

The Examiner rejects the claims as obvious under 35 U.S.C. 103(a) over the disclosure in the specification on page 1, lines 19-23, page 2 lines 1-12, in view of Sucech, U.S. 5,643,510, and in view of Diez et al., U.S. 5,240,639.

The Applicant respectfully disagrees and submits that claims 1 and 4 are non-obvious.

Claim 1 discloses a combination of features that are not disclosed or suggested by the references. In particular, Claim 1 discloses:

"wherein the pore size adjusting agent contains at least one substance selected from the group consisting of agents for increasing sizes of pores formed by bubbles in the foamed gypsum slurry and agents for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry";

"the agent for increasing sizes of pores formed by bubbles in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances";

"the agent for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry contains at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents"; and

"a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum".

At least these features of claim 1 are not disclosed or suggested by the references alone or in combination. Therefore, claim 1 would not be obvious to one skilled in the art.

In particular, "alkyl ether sulfate oligomers" (emphasis added) as disclosed in claim 11 of Sucech (such as "$CH_3(CH_2)_{5-11}CH_2(OCH_2CH_2)_{0-5}OSO_3Na$" as disclosed in claim 12 of Sucech) and "alkyl sulfate oligomers" (emphasis added) as disclosed in claim 11 of Sucech (such as "$CH_3(CH_2)_{7-9}OSO_3Na$" as recited in claim 12 of Sucech) is not included in "the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents" as in claim 1.

Therefore the features, "wherein the pore size adjusting agent contains at least one substance selected from the group consisting of" "agents for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry; and" "the agent for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry contains

at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents; and a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum," as recited in independent claim 1, are not disclosed or suggested in Sucech.

Furthermore, Diez et al. discloses in ¶[0008] that "A foam stabilizer as referred to in the present invention means a compound having deforming effect or foam breaking effect, wherein for compounds having deforming effect, it is possible to provide generally known deforming agents, that is, organic compounds such as higher fatty acid derivatives, alcohols, silicone oils, paraffins, as well as hydraulic substances (gypsum and cement) completed by using these, their waste powder, paste and the like. Furthermore, for compounds having foam breaking effect, it is possible to provide polyvalent metal sulfates, for example, sulfates of transition metals represented by manganese and iron, as well as sulfates of I- or more- valent metals such as magnesium, zinc and aluminum, among these, iron or aluminum sulfate is particularly preferable" and "generally, in case of a deforming agent, it is 0.5 parts by weight or less, and in case of a foam breaker, it is in a range of 1.0 part by weight or less, per 100 parts by weight of calcined gypsum, wherein in the case of a deforming agent, it is preferably 0.001-0.01 part by weight, an din the case of a foam breaker, it is preferably in a range of 0.1-0.5 parts by weight" as in ¶[0009].

Thus, the "foam stabilizer" in which "the mixing amount of the foam stailizer is 0.001-1.0 part by weight per 100 parts by weight of calcined gypsum constituting the core material" as disclosed in claim 5 of Diez et al., is not a "compound having foam breaking effect" or a "foam breaker" such as "iron or aluminum sulfate" as disclosed in ¶[0008] and ¶[0009] of Diez et al. but is not a "deforming agent" as disclosed in ¶[0008] and ¶[0009] of Diez et al.

Regarding a "compound having foam breaking effect" or a "foam breaker" such as "iron or aluminum sulfate" as in ¶[0008] and ¶[0009] of Diez et al., Diez et

al. discloses that "generally...in case of a foam breaker, it is in a range of 1.0 part by weight or less, per 100 parts by weight of calcined gypsum, wherein...in the case of a foam breaker, it is preferably in a range of 0.1-0.5 parts by weight" in paragraph [0009] as mentioned above.

Furthermore, no combination of the features "the foam stabilizer is a polyvalent metal sulfate" as disclosed in claim 3 of Sucech and "the mixing amount of the foam stabilizer is 0.001-1.0 parts per weight per 100 parts by weight of calcined gypsum constituting the core material" as disclosed in claim 5 of Diez et al., is disclosed or suggested in Diez et al. because claim 5 of Diez et al. does not depend from claim 3.

Clearly, the Examiner's assertion "using a 0.001 parts to 0.01 parts "foam adjusting agent (pore adjusting agent)...such as ferric sulfate and aluminum sulfate" in the Office Action on page 6, lines 7-9, is not supported by the disclosure of Diez et al.

Accordingly, the features "wherein the pore size adjusting agent contains at least one substance selected from the group consisting of agents for increasing sizes of pores formed by bubbles in the foamed gypsum slurry" "; and the agent for increasing sizes of pores formed by bubbles in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances;" " and a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as in claim 1, is not disclosed or suggested by the references, in whole or in combination, even in view of the disclosures of the specification at lines 19-33 on page 1 and lines 1-12 on page 2.

The Applicant respectfully asserts, therefore, that the present invention, as claimed in claim 1, and dependant claim 4, is non-obvious and requests that the Examiner withdraw this ground of rejection as to these claims.

In light of the foregoing response, all the outstanding rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

4-24-2009
Date

Attorney for Applicant
Zareefa B. Flener
Registration No. 52,896

Ladas & Parry LLP
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300